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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/674,661	07/02/2001	Arne Godal	Q-61582	5309

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EXAMINER

HENDRICKSON, STUART L

ART UNIT PAPER NUMBER

1754

DATE MAILED: 11/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

091674661

Applicant(s)

Gaba

Examiner

Herbickson

Group Art Unit

1754

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

☒ Responsive to communication(s) filed on 9/29/04

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 15-27, 29, 30 is/are pending in the application.
- Of the above claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 15-27, 29, 30 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement

Application Papers

- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).
- ☐ All ☐ Some* ☐ None of the:
- ☐ Certified copies of the priority documents have been received.
- ☐ Certified copies of the priority documents have been received in Application No. _____
- ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

*Certified copies not received: _____

Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☐ Interview Summary, PTO-413
- ☐ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Other _____

Office Action Summary

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The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 15-27, 29, 30 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for making carbon black, does not reasonably provide enablement for making fullerenes. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to use the invention commensurate in scope with these claims. It appears that this application is directed to making carbon black. Specification pg. 2 states that soot has a formula of C_{40} , but this is speculative and the term 'soot' encompasses a myriad of other materials. Finally, there is no indication as to what evidence exists that this proposed formula is correct.

Claims 15-27, 29 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lynum 5527518.

Lynum teaches making carbon black by heating hydrocarbons in a flame, and recycling the hydrogen to burn it for heat. Lynum does not teach the formula, but no differences are seen as the present specification makes carbon black. Lynum teaches the option of adding oxidant to the gas environment to alter the carbon. Therefore, addition of a minor amount of oxygen at the velocity of claim 22 is within the claimed range is a matter of optimization; In re Boesch 205 USPQ 215. Concerning claim 17, the overlapping temperature of 1000 is taught. Claims 18-20 appear to describe only how to make a flame; that the reference uses a flame implies that these steps are followed; the examiner takes Official Notice that it is known to burn hydrocarbons in oxygen to make a flame.

Claims 15-21, 23-26, 29, 30 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Morgan et al. 3619140.

Morgan teaches making a hot flame and burning oil at substoichiometric oxygen level to make carbon black. Although the formula is not recited, no differences are seen.

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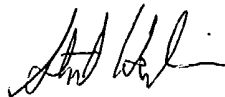
Claims 22, 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morgan et al. Morgan does not explicitly teach the velocity, but teaches turbulent conditions. Using a high velocity in the range claimed is thus an obvious measure to create turbulence. Concerning claim 27, burning the hydrogen is an obvious expedient to recover the heat content thereof.

Applicant's arguments filed 9/29/04 have been fully considered but they are not persuasive. The arguments confuse the combustion to form the flame versus that used to form the carbon black; both the references and the claims form a flame using oxygen then use a substantially oxygen-free pyrolysis/decomposition to make the carbon black product. No differences are seen. The claims do not reflect anything different. Specification pg. 1 does not teach a 4:1 carbon oxygen (or vice-versa) combustion ratios. If applicants wish to rely upon combustion calculations, then they should do so in Declaration form, clearly explaining how all numbers used are obtained or derived. Even though 'soot' is not used in the claims, the issue raised is relevant, especially in light of the repeated comments that the claims are not being narrowed. The claims are not limited to carbon black, however it appears that they should be. The electricity used by Lynum is not seen to be relevant and the claims do not exclude quenching. No differences in the product are seen and it is not limited to any degree of purity.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication should be directed to examiner Hendrickson at telephone number (571) 272-1351.



Stuart Hendrickson
examiner Art Unit 1754